

Memorandum

Date : August 22, 2003

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To : **Pico Power Project Siting Committee:**

John L. Geesman, Commissioner and Presiding Member

Arthur H. Rosenfeld, Commissioner and Associate Member

From : **California Energy Commission** - Matt Trask, Project Manager
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Subject : **Staff Comments on the Presiding Member's Proposed Decision for the Pico Power Project (02-AFC-03)**

On August 8, 2003, the Presiding Member's Proposed Decision (PMPD) for the Pico Power Project (PPP) was released. The Notice of Availability directed interested parties, governmental agencies and members of the public to file written comments by August 26, 2003. Staff respectfully submits the following attached comments. Where staff recommends changes to the language found in the PMPD, the changes are shown in the underline/strikeout format, with new text underlined and deleted text struck through.

cc: Pico Power Project POS list

Attachment

In the matter of:

Application for Certification for the
Pico Power Project (02-AFC-3)

STAFF COMMENTS ON PRESIDING MEMBER'S PROPOSED DECISION

INTRODUCTION

The Committee has requested comments on its Presiding Member's Proposed Decision ("PMPD") by August 26, 2003. Staff has reviewed the PMPD and found it to be sound in both its discussions and conclusions, with one significant exception. That exception pertains to the topic Soil and Water Resources, where Condition of Certification 6 would allow potentially unrestricted groundwater pumping. This condition is inconsistent with uncontested testimony from both the staff and the applicant that the aquifer from which the groundwater would be taken has been significantly overdrawn in the past, and that this overdraw can result in significant adverse environmental effects. Staff thus proposed limits on future use of groundwater by the Pico project, within a boundary that staff ascertained to be unlikely to result in significant adverse environmental effects. The PMPD has removed this reasonable restriction, despite it being based on the record testimony, because of a last minute request by the applicant, calling the potential for such impact "unforeseeable." Yet the impact is demonstrably foreseeable, as the purpose of staff's testimony was to analyze the potential impact and provide conditions to avoid it. Staff urges the Committee to restore the condition limiting the project's use of groundwater to 45 days. This issue is discussed in greater detail below. Staff's other comments are more in the nature of errata, do not require substantive changes in the conditions of certification, and are addressed in subsequent discussions under headed topics.

SOIL AND WATER RESOURCES

The Pico Power Project is remarkably free from the problems and controversies that sometimes afflict power plant applications. Of all the issues staff must address, the project's potential to affect groundwater resources was perhaps staff's greatest concern. The project will rely on recycled water, but will use groundwater as a backup should the delivery of recycled water be disrupted. Groundwater overdraft is an important issue in the San Jose area. Because groundwater impacts are an esoteric expertise, staff relied on an experienced private expert consultant to assess potential impacts that could result from groundwater use. Such impacts include overdraft, well interference, land subsidence, seawater intrusion, and groundwater contamination (the migration of toxic plumes of contamination already in the aquifer or adjoining aquifers). (Staff Assessment ["SA"], pp. 4.8-26 to 4.8-28.)

The above issues can only be analyzed if the analyst has specific numbers for the volume and duration of groundwater use. Staff consulted with the applicant to determine what numbers should be assumed for determining groundwater impact should the power plant lose its recycled water supply due to an “act of God” or any other reason. The applicant proposed that such impacts be analyzed assuming that the project uses groundwater for all its cooling needs for 45 days per year. This was considered a conservatism, inasmuch as the recycled water supply is highly reliable, and any disruption in supply would likely be for considerably less than 45 days. (SA, p. 4.8-12.) Historic outages have typically ranged from 12 to 72 *hours* per year. (SA, p. 4.8-16.) However, the fact that the recycled water supply is reliable means that use in excess of 45 days is *unlikely*, not that such prolonged use is *unforeseeable*.

To calculate project impacts, staff assumed aquifer “drawdown” from the project for 45 days. Staff was particularly concerned with the “vertical gradient” of any drawdown, which could draw already contaminated water into the Lower Aquifer Zone, the primary water supply for the San Jose basin. (SA, p. 4.8-20.) The applicant’s assessment was that such contamination through the Major Aquitard would not occur, “in part because project pumping would be infrequent.” (*Ibid.*) Staff generally agrees with this assessment, but testified that an “aquifer test program,” such as was proposed by the applicant, was necessary to validate this conclusion. Staff and applicant have agreed to this program, which is detailed in Condition of Certification **Soil and Water 8**. The aquifer test program will also require analysis based on 45 days of pumping each year. (PMPD, p. 136.) **Neither staff nor the applicant have performed any analysis of the effects of using groundwater at levels beyond 45 days of pumping each year, nor is there any requirement for such analysis in the decision.**

Thus, as currently written, “unforeseen circumstances outside of the control of the project owner” would allow the project to use aquifer water beyond 45 days, with no time period limitation. The potential effects on the aquifer of project use beyond 45 days per year, in terms of water contamination, well interference, land subsidence, and so forth, have not been analyzed. In fact, there can be no useful analysis unless some outer limit on the duration of such water use is assumed.

The absence of any analysis of more extended groundwater pumping allowed by the decision should cause concern to the water district, nearby well owners, and others who may be affected. It is also inconsistent with the California Environmental Quality Act, which requires analysis of all potentially significant environmental issues that are foreseeable. The PMPD dismisses this issue by calling the effects of greater groundwater pumping “unforeseeable and beyond the project owners control.” (PMPD, p. 132.) It is clearly neither. It is obviously “foreseeable”, inasmuch as it an issue the staff has spent considerable time in this case attempting to grapple with; indeed, the issue for potential impact from excessive groundwater use is discussed at length in the SA and the PMPD.

If groundwater use beyond 45 days were not foreseeable, the applicant would have never made the request for open-ended *force majeure* language in the condition. It is also obviously within the control of the applicant, in that the applicant can clearly limit groundwater pumping to 45 days per year.

The PMPD also refers to the Russell City Energy Center (RCEC) decision, and the applicant's argument that it is only "requesting the same [condition] language for the same reasons." (PMPD, p. 129.) Indeed, the RCEC decision did use the same condition language. **But the RCEC project did not propose to use groundwater at all.** (Russell City Commission Decision, p. 159; Russell City Final Staff Assessment, pp. 3.9-6, 3.9-7, 3.9-13.) Rather, RCEC's backup water supply was the City of Hayward's potable water supply, provided from the City of San Francisco's Hetch Hetchy Reservoir. (*Id.*, at p. 3.9-7.) The Staff found that reliance on this backup supply would have no significant environmental impact even if the project drew upon the backup source for a prolonged period of time. (*Id.*, at p. 3.9-13.) Thus, applicant's argument that it only wants "the same language for the same reasons" as that of RCEC project is simply erroneous.

For the above reasons, staff urges the Committee to eliminate the unlimited *force majeure* language that it included in Soil and Water Condition 6, as follows:

Groundwater shall be used as a backup water supply for the PPP. Groundwater shall only be used during the time when the primary water supply is unavailable. The maximum groundwater use for the project shall not exceed 57 million gallons nor shall it exceed a period of more than 45 days each year. ~~However, groundwater may be used for cooling and process purposes in excess of 45 days per calendar year if an unavoidable interruption of the reclaimed water supply is due to an Act of God, a natural disaster, an unforeseen emergency or other unforeseen circumstances outside of the control of the project owner. If one of the aforementioned unavoidable interruptions should occur, the CPM, project Owner, and San Jose/Santa Clara Water Pollution Control Plan shall confer and determine how to restore the reclaimed supply as soon as practicable.~~

GENERAL CONDITIONS

- **Pages 40 and 41, Summary of General Conditions of Certification**

Comment: Staff notes some minor inconsistencies between the way the General Conditions are described in the summary table found on pages 40 and 41 of the PMPD, and the actual conditions found on pages 20 through 38. Staff recommends that the “Description” column in the table on page 41 be revised to be consistent with the actual conditions.

For **COM-9**, Security Plans, the description should be revised as follows:

“Prior to commencing construction, the project owner shall ~~submit~~prepare a Construction Security Plan. Prior to commencing operation, the project owner shall ~~submit~~prepare an Operation Security Plan.”

For **COM-10**, Confidential Information, the description should be revised as follows:

“Any information the project owner deems confidential shall be submitted to the Commissions Dockets ~~Unit~~ with an application for confidentiality.”

For **COM-16**, the description should be revised as follows:

The project owner must petition to Energy Commission to delete or change a condition of certification, modify the project design or operational requirements and/or transfer ownership ~~of~~or operational control of the facility.”

FACILITY DESIGN

Comment: Since the release of Phase 1 of the Staff Assessment for the Pico Power Project, the California Building Code (CBC) has been updated. Though a condition of certification specifies that any update of the CBC will be automatically applied to the Pico Power Project construction, for clarity staff recommends that all reference to the 1998 CBC be deleted from the PMPD and replaced with reference to the 2001 CBC, which took effect on May 1, 2003. Staff has found reference to the 1998 CBC in the following sections of the PMPD, and recommends the “1998” date be replaced with “2001”:

Page 45, 5th paragraph, 2nd line,
page 45, 6th paragraph, 2nd line,
page 46, 1st paragraph, 2nd line,
page 48, 1st paragraph, 4th line,
page 50, 3rd paragraph, 3rd line,

page 51, 4th paragraph, 5th line,
page 51, 5th paragraph, 3rd line,
page 51, 7th paragraph, 3rd line,
page 52, 8th paragraph, 4th line,
page 52, 12th paragraph, 4th line,
page 53, 5th paragraph, 4th line,
page 54, 1st paragraph, 1st line,
page 54, 1st paragraph, 4th line,
page 54, 7th paragraph, 2nd line,
page 54, 9th paragraph, 8th line,
page 55, 1st paragraph, 2nd line,
page 55, 2nd paragraph, 3rd line,
page 55, 4th paragraph, 4th line,
page 56, 5th paragraph, last line,
page 56, 6th paragraph, 7th line,
page 56, 7th paragraph, 5th line,
page 57, 7th paragraph, 2nd line,
page 57, 8th paragraph, 4th line,
page 57, 10th paragraph, 2nd line,
page 58, 2nd paragraph, 2nd line,
page 58, 5th paragraph, 8th line,
page 58, 5th paragraph, 10th line,
page 59, 5th paragraph, last line,
page 59, 8th paragraph, 6th line,
page 60, 4th paragraph, 10th line,
page 60, 6th paragraph, 6th line,
page 60, 6th paragraph, 11th line.

HAZARDOUS MATERIALS MANAGEMENT

- **Page 106, Third complete paragraph**

Comment: Though listed correctly in the actual Condition of Certification **HAZ-6** found on page 109, the “Summary of Evidence” section on page 106 inadvertently includes language from that condition that was previously deleted as the results of discussions with the applicant. Accordingly, staff recommends the last sentence of the third complete paragraph on page 106 be revised as follows:

Approximately 2,000 gallons of 93 percent sulfuric acid will be used and stored on-site. This material does not pose a risk of off-site impacts, because it has relatively low vapor pressures and thus spills would be confined to the site. However, in order to protect against risk of fire, an additional Condition of Certification (see HAZ-6) will require the project owner to ensure that no combustible or flammable material is stored, ~~used, or transported~~ within 100 feet of the sulfuric acid tank (Ex. 29, p. 4.3-6).

- **Page 108, HAZ-3**

Comment: The word “Verification” was inadvertently omitted from this condition. Accordingly, staff recommends HAZ-3 be revised as follows:

HAZ-3 The project owner shall develop and implement a Safety Management Plan (SMP) for delivery of ammonia. The plan shall include procedures, protective equipment requirements, training and a checklist. It shall also include a section describing all measures to be implemented to prevent mixing of aqueous ammonia with incompatible hazardous materials.

Verification: At least 60 days prior to the first delivery of aqueous ammonia to the ammonia storage tanks, the project owner shall provide a safety management plan as described above to the CPM for review and approval.

CULTURAL RESOURCES

- **Page 138, C. Cultural Resources, First Paragraph**

Comment: Staff notes that the “three aspects” of cultural resources addressed in staff’s analysis excluded some areas that staff is required to evaluate under law. While the categories listed – archaeological, historic and ethnographic resources – are useful to encompass the entire realm of cultural resources, at times it is helpful to be more specific. Accordingly, staff recommends that the last part of the first paragraph on page 138 be revised as follows

Three aspects of cultural resources were addressed in Applicant’s and in Staff’s analysis: prehistoric and historic archaeological resources, historic period resources and ethnographic resources. These three broad categories include buildings, sites, structures, objects, and historic districts, which are evaluated for eligibility to the California Register of Historical Resources (CRHR) if they are 45 years old or appear exceptional and would be impacted by the project.

- **Page 138. Summary of the Evidence.**

Comment: Staff feels that a discussion of the Newark-Kifer Transmission Line is important because it is an identified cultural resource that is potentially eligible to the CRHR, and the transmission line would be affected by the project. Accordingly, staff recommends the following sentence be added at the end of the first paragraph under the “Summary of Evidence” header on page 138:

In total, the Applicant identified 14 potential cultural resources within one-mile of the project or one-quarter mile of the project linears. The potential cultural resources included a segment of the Newark-Kifer 115kV Transmission Line that

was originally built by PG&E in the 1920's. The Transmission Line would be affected by the project (Ex. 29, p. 4.2-6).

- **Page 139. First Paragraph. Last sentence.**

Comment: Staff has received one response to its letter sent to Native American groups and individuals in the Santa Clara area asking parties to contact staff if they have concerns about the effects of project-related activities on cultural resources. Accordingly, staff recommends that the last sentence of the first paragraph at the top of page 139 be revised as follows:

No responses have been received by either Applicant's consultant or Staff. On June 2, 2003, after publication of the Staff Assessment, Ms. Jakki Kehl, who is listed on the NAHC contact list, called to express concern regarding cultural resources in the vicinity of the PPP. Staff explained that the Applicant, and other City of Santa Clara agencies and departments, as well as staff, regarded the area as sensitive for cultural resources. In addition, Staff provided information regarding the conditions of certification and monitoring requirements for the project.

- **Page 139. Fourth Paragraph**

Comment: The 115kV Newark-Kifer Transmission Line is older than 45 years and would be affected by the project. Because of this potential impact, staff evaluated the line for eligibility to the CRHR. If the line had been recommended as eligible to the CRHR, Staff would have recommended mitigation. Accordingly, staff recommends an additional paragraph be inserted after the fourth paragraph on page 139, as follows:

The 115kV Newark-Kifer Transmission Line would be adversely affected by the project. The line was originally constructed by PG&E in the 1920's. Since the transmission line would be affected by the project, staff requested that the Applicant evaluate it for eligibility to the California Register of Historic Resources (CRHR). The evaluation was conducted for the applicant by JRP Historical Consulting Services. JRP concluded that the 115kV Newark-Kifer Transmission Line was not eligible to the CRHR under any of the four criteria used for evaluation. Staff agreed with the evaluation and concluded that no mitigation was required (SVP 2003c, Form DPR 523).

Page 140. Findings and Conclusions

Comment: Similarly to the above comment, the 115kV Newark-Kifer Transmission Line is more than 50 years old and is located within the project footprint. However, it was evaluated as not eligible to the CRHR by JRP Historical Consulting Service. Therefore, staff recommends that the first numbered item under the “Findings and Conclusions” header on page 140 be revised as follows:

1. No known significant cultural resources exist within the Project site and linear footprint.

TRAFFIC AND TRANSPORTATION

- **Page 188. Condition of Certification TRANS-7**

Comment: The first paragraph of this condition incorrectly states that staff has identified two alternate routes to the project site, while the remainder of the condition correctly refers to three alternate routes. Staff recommends that the first paragraph of TRANS-7 be revised to read:

TRANS-7 During construction and operation of the PPP, the project owner and contractors shall enforce a policy that all project-related traffic traveling north on Lafayette Street avoid turning left across traffic onto Duane Street, and from turning left onto Lafayette Street from Duane Street. Staff has identified ~~two~~three alternate routes for reaching the site that avoid the left turn off at Lafayette Street.

VISUAL RESOURCES

- **Pages 194-195. “Findings and Conclusions”**

Comment: Under the heading “Findings and Conclusions” on pages 194-195, staff offers the following changes so the PMPD Findings will accord with the evidence in the record:

2. With the mitigation measures that the Applicant has agreed to implement and those required as Conditions of Certification, ~~the PPP does~~will not substantially degrade the existing visual character or quality of the site and its surroundings. The project’s architectural treatment and landscaping around the perimeter of the site and will help to visually relate the project ~~visually relate~~ it to its immediate setting.

4. The PPP project as proposed ~~does~~will not create a new source of substantial light or glare that would adversely affect day or nighttime views in the area.
5. The PPP project as proposed will not create significant visual impacts associated with visible plumes from the HRSGs or cooling towers.
6. With the implementation of the Conditions of Certification the PPP project ~~does~~will comply with all applicable local laws, ordinances, regulations, and standards.